

**AMENDMENTS TO THE CLAIMS:**

This listing of the claims will replace all prior versions, and listings, of the claims in this application.

**Listing of Claims:**

1. (Original) A system for baseband amplitude limiting, the system comprising:  
  
    at least one first rotator, wherein the at least one first rotator comprises at least one first angle accumulator;  
  
    a first gain device, wherein the first gain device is coupled to the at least one first rotator;  
  
    a first limiter, wherein the first limiter is coupled to the first gain device; and  
  
    at least one second rotator, wherein the at least one second rotator comprises at least one second angle accumulator, and wherein the at least one second rotator is coupled to the first limiter.
2. (Original) A system as in claim 1 wherein the at least one first rotator comprises a first COordinate Rotation DIgital Computer (CORDIC) device.
3. (Original) A system as in claim 2 wherein the first CORDIC device comprises a first field programmable gate array (FPGA).
4. (Original) A system as in claim 2 wherein the first CORDIC device comprises a first application specific integrated circuit (ASIC).

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5. (Previously Amended) A system as in claim 1 wherein the at least one second rotator comprises a second Coordinate Rotation Digital Computer (CORDIC) device;

a second vector mode; and

a second rotation mode.

6. (Original) A system as in claim 5 wherein the second CORDIC device comprises the first FPGA.

7. (Original) A system as in claim 5 wherein the second CORDIC device comprises the first ASIC.

8.-20. (Canceled)

21. (Previously Amended) A method for efficiently limiting a vector magnitude, the method comprising the steps of:

providing a first vector, the first vector comprising:

a first magnitude;

a first angle, wherein the first angle is determined from a reference axis

rotating a first vector such that the first angle is substantially zero, wherein rotating the first vector further comprises the steps of:

rotating the first vector through a plurality of angles;

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successively summing each of the plurality of angles in a first accumulator;  
  
limiting the first magnitude to a predetermined magnitude to form a second vector; and  
  
rotating the second vector through a second angle substantially equal and opposite to the first accumulator angle.